

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference KAPRO PCT-05	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/IL 03/01123	International filing date (day/month/year) 31.12.2003	Priority date (day/month/year) 31.12.2003
International Patent Classification (IPC) or both national classification and IPC G01C9/26, G01C9/28		
Applicant KAPRO INDUSTRIES LTD		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 4 sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input checked="" type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application 		
Date of submission of the demand 20.02.2005	Date of completion of this report 30.06.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Passier, M Telephone No. +31 70 340-4872	



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INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

International application No. PCT/IL 03/01123

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-5 as originally filed

Claims, Numbers

1-21 received on 15.06.2005 with letter of 15.06.2005

Drawings, Sheets

15-55 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IL 03/01123

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

the entire international application,
 claims Nos. 10,21

because:

the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
 the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 10,21 are so unclear that no meaningful opinion could be formed (specify):

see separate sheet

the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 no international search report has been established for the said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

the written form has not been furnished or does not comply with the Standard.
 the computer readable form has not been furnished or does not comply with the Standard.

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees, the applicant has:

restricted the claims.
 paid additional fees.
 paid additional fees under protest.
 neither restricted nor paid additional fees.

2. This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IL 03/01123

complied with.
 not complied with for the following reasons:

see separate sheet

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

all parts.
 the parts relating to claims Nos. .

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-9,11-20
	No: Claims	
Inventive step (IS)	Yes: Claims	1-9,11-20
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-9,11-20
	No: Claims	

2. Citations and explanations

see separate sheet

INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET

International application No. PCT/IL 03/01123

Re Item III

Claims 10 and 21 contain references to the description and the drawings. According to R.6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here. Therefore, no opinion can be formed in the sense of A.33(1) PCT for **claims 10 and 21**.

Re Item IV

1. The application does not meet the requirement of R.13.1 PCT, as it lacks unity for the following reasons:
 2. The common concept linking together the independent **claims 1 and 11** is a pocket level with a horizontal bubble vial and a generally prismatic body with a front surface, a rear surface and a quadrilateral surround having a leveling surface. This common concept is not inventive (see e.g. GB-2210167) and is thus not providing unity of invention as required by R.13.1 PCT.
 3. The following inventions are recognised:
invention I: claims 1-6, 10 and 14-20;
invention II: claims 7-9, 11-13 and 21.
 4. In addition to the common concept, the claims of **invention I** define a line level which is detachable from the body in order to reduce costs and increase packaging convenience
 5. In addition to the common concept, the claims of **invention II** define a wheel rotatably supported by the body in order to accurately and easily measure inclination angles.
 6. The additional features differ from each other to such an extent that they are not considered as same or corresponding special technical features in the sense of R.13.2 PCT. Consequently, a technical relationship involving one or more of the same or corresponding special technical features is absent so that the requisite unity of invention (R.13.1 PCT) does not exist.

Re Item V

1. **Prior Art**

The following documents are referred to:

D1: GB-A-2210167
D2: GB-A-2 348 953

INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET

International application No. PCT/IL 03/01123

D3: US-A-5 103 569

D4: DE 32 05 206 A

2. **Technical Field**

The invention relates to spirit levels in general and pocket levels in particular.

3. **Novelty and Inventive Step (Article 33(1),(2),(3) PCT)**

1. The subject-matter of **claims 1-9 and 11-20** is novel and inventive for the following reasons:
 2. With respect to **invention I** document **D1** is considered to represent the closest state of the art. **D1** discloses a pocket level comprising a detachable line level with a horizontal bubble vial. The detachable line level is held in place in a recess in the main body by means of magnetic strips. Apart from the detachable line level, the pocket level of **D1** contains fixed horizontal and vertical bubble vials.
 3. The subject-matter of **claim 1** differs from **D1** essentially in that the detachable line level is provided with a longitudinally extending groove in its bottom surface and that the recess has a longitudinally extending rib for snug insertion into said groove. In the configuration with the line level being attached to the main body this provides a rigid connection between the line level and the main body. Such a solid connection cannot be achieved by the magnetic strips of **D1** which, in the attached configuration, cannot completely prevent relative motion between the detachable line level and the main body. Thus, the detachable line level of **claim 1** has an exact and steady connection to the main body in such a manner that the line level's horizontal bubble vial doubles as the pocket level's horizontal bubble vial. This eliminates the need for an additional fixed horizontal bubble vial (as in **D1**).
 4. Neither **D2** nor **D4** disclose or suggest such a rib-groove connection between a detachable line level and the main body. **D3** discloses a rib-groove connection, but this is a vertical connection between a detachable vertical vial (not a line vial) and the main body, so that the skilled person would not be prompted by **D3** to replace the horizontal magnetic strips of the line vial **D1** with a rib-groove connection.
 5. With respect to **invention II** document **D2** is considered to represent the closest state of the art. **D2** discloses a pocket level comprising an open triangular body with a rotatably supported wheel rim surface with a bubble vial extending diametrically thereacross inside the body opening.

INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET

International application No. PCT/IL 03/01123

6. The subject-matter of **claim 11** differs from **D2** essentially in that the body has a quadrilateral surround having a throughgoing cutout enabling access to the wheel rim surface. This enables easier access to the rotatable bubble vial so that more accurate measurements can be obtained.
7. Neither **D1** nor **D3** disclose or suggest such an access to a wheel rim of a rotatable bubble vial. **D4** discloses wheel rim surfaces located in cutouts in a quadrilateral surround, but these wheel rim surfaces do not belong to rotatable bubble vials, so that the skilled person would not be prompted by **D4** to modify the device of **D2** into something defined by **claim 1**.
8. **Claims 2-9 and 12-20** are dependent on **claims 1 and 11**, respectively, and as such also meet the requirements of the PCT with respect to novelty and inventive step.

4. **Industrial Applicability (Article 33(1),(4) PCT)**
The invention as claimed in **claims 1-9 and 11-20** is industrially applicable.

Other

1. **Claims 1 and 11** are unclear (A.6 PCT), because the expression "for indicating the inclination of a horizontally disposed surface with respect to the horizontal" is not understandable. It appears that such an inclination by definition always equals zero. It is thus unclear, from the wording of the claims, what the horizontal bubble vial intends to indicate. Similarly, it is unclear what is meant with "a leveling surface for placing on the horizontally disposed surface". Should it not be placed on an inclined surface?
2. The features of the claims are not provided with reference signs placed in parentheses (R.6.2(b) PCT).
3. The relevant background art disclosed in the document **D2** is not mentioned in the description, nor is this document identified therein (R.5.1(a)(ii) PCT).